

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/662,425

Source: _____

Date Processed by STIC: _____

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/662,425

DATE: 10/20/2004

TIME: 15:11:04

Input Set : N:\CrF3\RULE60\10662425.raw.txt

Output Set: N:\CRF4\10202004\J662425.raw

1 <110> APPLICANT: MINOPRIO, PAOLA
 2 ARALA-CHAVES, MARIO
 3 COUTINHO, ANTONIO
 4 SAN MARTIN, BERNARDO REINA
 5 ROUGEOT, CATHERINE
 6 DEGRAVE, WIM
 7 COSSON, ALAIN
 8 <120> TITLE OF INVENTION: CLONING, SEQUENCING, AND EXPRESSION OF A GENE ENCODING
 9 AN EUKARYOTIC AMINO ACID RACEMASE, AND DIAGNOSTIC,
 10 THERAPEUTIC, AND VACCINATION APPLICATIONS OF PARASITE
 11 AND VIRAL MITOGENS
 12 <130> FILE REFERENCE: 03495.0200
 13 <140> CURRENT APPLICATION NUMBER: US/10/662,425
 14 <141> CURRENT FILING DATE: 2003-09-16
 15 <150> PRIOR APPLICATION NUMBER: US/09/725,945
 16 <151> PRIOR FILING DATE: 2000-11-30
 17 <150> PRIOR APPLICATION NUMBER: 60/168,631
 18 <151> PRIOR FILING DATE: 1999-12-03
 19 <150> PRIOR APPLICATION NUMBER: 60/220,207
 20 <151> PRIOR FILING DATE: 2000-07-24
 21 <150> PRIOR APPLICATION NUMBER: 60/221,117
 22 <151> PRIOR FILING DATE: 2000-07-27
 23 <160> NUMBER OF SEQ ID NOS: 26
 24 <170> SOFTWARE: PatentIn Ver. 2.1
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 418
 28 <212> TYPE: PRT
 29 <213> ORGANISM: Trypanosoma cruzi
 30 <400> SEQUENCE: 1
 31 Met Arg Lys Ser Val Cys Pro Lys Gln Lys Phe Phe Phe Ser Ala Phe
 32 1 5 10 15
 33 Pro Phe Phe Phe Cys Val Phe Pro Leu Ile Ser Arg Thr Gly
 34 20 25 30
 35 Gln Glu Lys Leu Leu Phe Asp Gln Lys Tyr Lys Ile Ile Lys Gly Glu
 36 35 40 45
 37 Lys Lys Glu Lys Lys Asn Gln Arg Ala Asn Arg Arg Glu His Gln
 38 50 55 60
 39 Gln Lys Arg Glu Ile Met Arg Phe Lys Lys Ser Phe Thr Cys Ile Asp
 40 65 70 75 80
 41 Met His Thr Glu Gly Glu Ala Ala Arg Ile Val Thr Ser Gly Leu Pro
 42 85 90 95
 43 His Ile Pro Gly Ser Asn Met Ala Glu Lys Lys Ala Tyr Leu Gln Glu
 44 100 105 110

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Input Set : N:\CrF3\RULE60\10662425.raw.txt
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45 Asn Met Asp Tyr Leu Arg Arg Gly Ile Met Leu Glu Pro Arg Gly His
 46 115 120 125
 47 Asp Asp Met Phe Gly Ala Phe Leu Phe Asp Pro Ile Glu Glu Gly Ala
 48 130 135 140
 49 Asp Leu Gly Met Val Phe Met Asp Thr Gly Gly Tyr Leu Asn Met Cys
 50 145 150 155 160
 51 Gly His Asn Ser Ile Ala Ala Val Thr Ala Ala Val Glu Thr Gly Ile
 52 165 170 175
 53 Val Ser Val Pro Ala Lys Ala Thr Asn Val Pro Val Val Leu Asp Thr
 54 180 185 190
 55 Pro Ala Gly Leu Val Arg Gly Thr Ala His Leu Gln Ser Gly Thr Glu
 56 195 200 205
 57 Ser Glu Val Ser Asn Ala Ser Ile Ile Asn Val Pro Ser Phe Leu Tyr
 58 210 215 220
 59 Gln Gln Asp Val Val Val Val Leu Pro Lys Pro Tyr Gly Glu Val Arg
 60 225 230 235 240
 61 Val Asp Ile Ala Phe Gly Gly Asn Phe Phe Ala Ile Val Pro Ala Glu
 62 245 250 255
 63 Gln Leu Gly Ile Asp Ile Ser Val Gln Asn Leu Ser Arg Leu Gln Glu
 64 260 265 270
 65 Ala Gly Glu Leu Leu Arg Thr Glu Ile Asn Arg Ser Val Lys Val Gln
 66 275 280 285
 67 His Pro Gln Leu Pro His Ile Asn Thr Val Asp Cys Val Glu Ile Tyr
 68 290 295 300
 69 Gly Pro Pro Thr Asn Pro Glu Ala Asn Tyr Lys Asn Val Val Ile Phe
 70 305 310 315 320
 71 Gly Asn Arg Gln Ala Asp Arg Gly Thr Ser Ala Lys Met Ala Thr Leu
 72 325 330 335
 73 Tyr Ala Lys Gly Gln Leu Arg Ile Gly Glu Thr Phe Val Tyr Glu Ser
 74 340 345 350
 75 Ile Leu Gly Ser Leu Phe Gln Gly Arg Val Leu Gly Glu Glu Arg Ile
 76 355 360 365
 77 Pro Gly Val Lys Val Pro Val Thr Lys Asp Ala Glu Glu Gly Met Leu
 78 370 375 380
 79 Val Val Thr Ala Glu Ile Thr Gly Lys Ala Phe Ile Met Gly Phe Asn
 80 385 390 395 400
 81 Thr Met Leu Phe Asp Pro Thr Asp Pro Phe Lys Asn Gly Phe Thr Leu
 82 405 410 415
 83 Lys Gln
 85 <210> SEQ ID NO: 2
 86 <211> LENGTH: 389
 87 <212> TYPE: PRT
 88 <213> ORGANISM: Trypanosoma cruzi
 89 <400> SEQUENCE: 2
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 91 1 5 10 15
 92 Lys Gly Glu Lys Lys Glu Lys Lys Lys Asn Gln Arg Ala Asn Arg Arg
 93 20 25 30
 94 Glu His Gln Gln Lys Arg Glu Ile Met Arg Phe Lys Lys Ser Phe Thr

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95          35          40          45
96  Cys Ile Asp Met His Thr Glu Gly Glu Ala Ala Arg Ile Val Thr Ser
97          50          55          60
98  Gly Leu Pro His Ile Pro Gly Ser Asn Met Ala Glu Lys Lys Ala Tyr
99          65          70          75          80
100  Leu Gln Glu Asn Met Asp Tyr Leu Arg Arg Gly Ile Met Leu Glu Pro
101          85          90          95
102  Arg Gly His Asp Asp Met Phe Gly Ala Phe Leu Phe Asp Pro Ile Glu
103          100          105          110
104  Glu Gly Ala Asp Leu Gly Met Val Phe Met Asp Thr Gly Gly Tyr Leu
105          115          120          125
106  Asn Met Cys Gly His Asn Ser Ile Ala Ala Val Thr Ala Ala Val Glu
107          130          135          140
108  Thr Gly Ile Val Ser Val Pro Ala Lys Ala Thr Asn Val Pro Val Val
109          145          150          155          160
110  Leu Asp Thr Pro Ala Gly Leu Val Arg Gly Thr Ala His Leu Gln Ser
111          165          170          175
112  Gly Thr Glu Ser Glu Val Ser Asn Ala Ser Ile Ile Asn Val Pro Ser
113          180          185          190
114  Phe Leu Tyr Gln Gln Asp Val Val Val Val Leu Pro Lys Pro Tyr Gly
115          195          200          205
116  Glu Val Arg Val Asp Ile Ala Phe Gly Gly Asn Phe Phe Ala Ile Val
117          210          215          220
118  Pro Ala Glu Gln Leu Gly Ile Asp Ile Ser Val Gln Asn Leu Ser Arg
119          225          230          235          240
120  Leu Gln Glu Ala Gly Glu Leu Leu Arg Thr Glu Ile Asn Arg Ser Val
121          245          250          255
122  Lys Val Gln His Pro Gln Leu Pro His Ile Asn Thr Val Asp Cys Val
123          260          265          270
124  Glu Ile Tyr Gly Pro Pro Thr Asn Pro Glu Ala Asn Tyr Lys Asn Val
125          275          280          285
126  Val Ile Phe Gly Asn Arg Gln Ala Asp Arg Gly Thr Ser Ala Lys Met
127          290          295          300
128  Ala Thr Leu Tyr Ala Lys Gly Gln Leu Arg Ile Gly Glu Thr Phe Val
129          305          310          315          320
130  Tyr Glu Ser Ile Leu Gly Ser Leu Phe Gln Gly Arg Val Leu Gly Glu
131          325          330          335
132  Glu Arg Ile Pro Gly Val Lys Val Pro Val Thr Lys Asp Ala Glu Glu
133          340          345          350
134  Gly Met Leu Val Val Thr Ala Glu Ile Thr Gly Lys Ala Phe Ile Met
135          355          360          365
136  Gly Phe Asn Thr Met Leu Phe Asp Pro Thr Asp Pro Phe Lys Asn Gly
137          370          375          380
138  Phe Thr Leu Lys Gln
139          385
141 <210> SEQ ID NO: 3
142 <211> LENGTH: 29
143 <212> TYPE: PRT
144 <213> ORGANISM: Trypanosoma cruzi

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RAW SEQUENCE LISTING
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Input Set : N:\CrF3\RULE60\10662425.raw.txt
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145 <400> SEQUENCE: 3
146 Met Arg Lys Ser Val Cys Pro Lys Gln Lys Phe Phe Ser Ala Phe
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148 Pro Phe Phe Phe Phe Cys Val Phe Pro Leu Ile Ser
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151 <210> SEQ ID NO: 4
152 <211> LENGTH: 354
153 <212> TYPE: PRT
154 <213> ORGANISM: Trypanosoma cruzi
155 <400> SEQUENCE: 4
156 Met Arg Phe Lys Lys Ser Phe Thr Cys Ile Asp Met His Thr Glu Gly
157 1 5 10 15
158 Glu Ala Ala Arg Ile Val Thr Ser Gly Leu Pro His Ile Pro Gly Ser
159 20 25 30
160 Asn Met Ala Glu Lys Lys Ala Tyr Leu Gln Glu Asn Met Asp Tyr Leu
161 35 40 45
162 Arg Arg Gly Ile Met Leu Glu Pro Arg Gly His Asp Asp Met Phe Gly
163 50 55 60
164 Ala Phe Leu Phe Asp Pro Ile Glu Glu Gly Ala Asp Leu Gly Met Val
165 65 70 75 80
166 Phe Met Asp Thr Gly Gly Tyr Leu Asn Met Cys Gly His Asn Ser Ile
167 85 90 95
168 Ala Ala Val Thr Ala Ala Val Glu Thr Gly Ile Val Ser Val Pro Ala
169 100 105 110
170 Lys Ala Thr Asn Val Pro Val Val Leu Asp Thr Pro Ala Gly Leu Val
171 115 120 125
172 Arg Gly Thr Ala His Leu Gln Ser Gly Thr Glu Ser Glu Val Ser Asn
173 130 135 140
174 Ala Ser Ile Ile Asn Val Pro Ser Phe Leu Tyr Gln Gln Asp Val Val
175 145 150 155 160
176 Val Val Leu Pro Lys Pro Tyr Gly Glu Val Arg Val Asp Ile Ala Phe
177 165 170 175
178 Gly Gly Asn Phe Phe Ala Ile Val Pro Ala Glu Gln Leu Gly Ile Asp
179 180 185 190
180 Ile Ser Val Gln Asn Leu Ser Arg Leu Gln Glu Ala Gly Glu Leu Leu
181 195 200 205
182 Arg Thr Glu Ile Asn Arg Ser Val Lys Val Gln His Pro Gln Leu Pro
183 210 215 220
184 His Ile Asn Thr Val Asp Cys Val Glu Ile Tyr Gly Pro Pro Thr Asn
185 225 230 235 240
186 Pro Glu Ala Asn Tyr Lys Asn Val Val Ile Phe Gly Asn Arg Gln Ala
187 245 250 255
188 Asp Arg Ser Pro Cys Gly Thr Gly Ser Ala Lys Met Ala Thr Leu
189 260 265 270
190 Tyr Ala Lys Gly Gln Leu Arg Ile Gly Glu Thr Phe Val Tyr Glu Ser
191 275 280 285
192 Ile Leu Gly Ser Leu Phe Gln Gly Arg Val Leu Gly Glu Glu Arg Ile
193 290 295 300
194 Pro Gly Val Lys Val Pro Val Thr Lys Asp Ala Glu Glu Gly Met Leu

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Input Set : N:\CrF3\RULE60\10662425.raw.txt
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195 305 310 315 320
 196 Val Val Thr Ala Glu Ile Thr Gly Lys Ala Phe Ile Met Gly Phe Asn
 197 325 330 335
 198 Thr Met Leu Phe Asp Pro Thr Asp Pro Phe Lys Asn Gly Phe Thr Leu
 199 340 345 350
 200 Lys Gln
 202 <210> SEQ ID NO: 5
 203 <211> LENGTH: 330
 204 <212> TYPE: PRT
 205 <213> ORGANISM: Clostridium sticklandii
 206 <400> SEQUENCE: 5
 207 Met Lys Phe Ser Lys Gly Ile His Ala Ile Asp Ser His Thr Met Gly
 208 1 5 10 15
 209 Glu Pro Thr Arg Ile Val Val Gly Gly Ile Pro Gln Ile Asn Gly Glu
 210 20 25 30
 211 Thr Met Ala Asp Lys Lys Tyr Leu Glu Asp Asn Leu Asp Tyr Val
 212 35 40 45
 213 Arg Thr Ala Leu Met His Glu Pro Arg Gly His Asn Asp Met Phe Gly
 214 50 55 60
 215 Ser Ile Ile Thr Ser Ser Asn Asn Lys Glu Ala Asp Phe Gly Ile Ile
 216 65 70 75 80
 217 Phe Met Asp Gly Gly Tyr Leu Asn Met Cys Gly His Gly Ser Ile
 218 85 90 95
 219 Gly Ala Ala Thr Val Ala Val Glu Thr Gly Met Val Glu Met Val Glu
 220 100 105 110
 221 Pro Val Thr Asn Ile Asn Met Glu Ala Pro Ala Gly Leu Ile Lys Ala
 222 115 120 125
 223 Lys Val Met Val Glu Asn Glu Lys Val Lys Glu Val Ser Ile Thr Asn
 224 130 135 140
 225 Val Pro Ser Phe Leu Tyr Met Glu Asp Ala Lys Leu Glu Val Pro Ser
 226 145 150 155 160
 227 Leu Asn Lys Thr Ile Thr Phe Asp Ile Ser Phe Gly Gly Ser Phe Phe
 228 165 170 175
 229 Ala Ile Ile His Ala Lys Glu Leu Gly Val Lys Val Glu Thr Ser Gln
 230 180 185 190
 231 Val Asp Val Leu Lys Lys Leu Gly Ile Glu Ile Arg Asp Leu Ile Asn
 232 195 200 205
 233 Glu Lys Ile Lys Val Gln His Pro Glu Leu Glu His Ile Lys Thr Val
 234 210 215 220
 235 Asp Leu Val Glu Ile Tyr Asp Glu Pro Ser Asn Pro Glu Ala Thr Tyr
 236 225 230 235 240
 237 Lys Asn Val Val Ile Phe Gly Gln Gly Gln Val Asp Arg Gly Thr Ser
 238 245 250 255
 239 Ala Lys Leu Ala Thr Leu Tyr Lys Lys Gly His Leu Lys Ile Asp Glu
 240 260 265 270
 241 Lys Glu Val Tyr Glu Ser Ile Thr Gly Thr Met Phe Lys Gly Arg Val
 242 275 280 285
 243 Leu Glu Glu Thr Lys Val Gly Glu Phe Asp Ala Ile Ile Pro Glu Ile
 244 290 295 300

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 10/20/2004
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Input Set : N:\Crf3\RULE60\10662425.raw.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:12; N Pos. 3,12,15
Seq#:13; N Pos. 6,12,15
Seq#:14; N Pos. 3,12,15

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 8

VERIFICATION SUMMARY

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DATE: 10/20/2004

TIME: 15:11:05

Input Set : N:\Crf3\RULE60\10662425.raw.txt
Output Set: N:\CRF4\10202004\J662425.raw

L:439 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:442 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12
L:443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:451 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:454 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13
L:455 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:463 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:466 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14
L:467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0